Chapter 7

Learning Milestones

This chapter encourages evaluators to become involved in influencing the data that are routinely collected about learning progress, and use that information in local evaluations. It describes the following ways that evaluators can support the use of learning milestones:

- identifying milestones;
- identifying measures to assess progress;
- keeping systematic records;
- reporting progress;
- troubleshooting results;
- relating outcomes and milestones; and
- using milestone data for continuous improvement.

In addition to measuring participants' progress against state performance indicators at key times (typically once a year) family literacy programs should also follow the short-term progress of family members. Staff members need to know whether the daily instruction they are providing is helping participants reach outcomes. In order for Even Start families to stick with a program long enough to achieve outcomes that will meet family goals, Even Start families need to see that they are making progress. For both reasons, monitoring progress daily or weekly with measures aligned to learning outcomes is a key part of operating an Even Start program. (See Chapter 3 for information about measuring outcomes).

From Subpart 3—William F. Goodling Even Start Family Literacy Programs, SEC. 1235 PROGRAM ELEMENTS.
Each program assisted under this subpart shall—
(11) encourage participating families to attend regularly and to remain in the program a sufficient time to meet their program goals;…
(13) if applicable, promote the continuity of family literacy to ensure that individuals retain and improve their educational outcomes;

Family literacy staff members can use a variety of techniques and measures to follow adults and children as they acquire learning strategies and skills and develop interests and dispositions. All Even Start programs need clear benchmarks in these four areas to monitor learning progress:

- expected skills within levels of adult learning (adult basic education, English as a Second Language, study for a high school diploma or equivalent, and job readiness skills);
- language and literacy development for children ages birth through primary grades;
- other domains of development (cognitive, socio-emotional, and physical) in children ages birth through primary grades; and
- parents' stages of learning how to support children's literacy development.

Monitoring learning progress systematically guides daily classroom and home instruction:

- The early childhood educator follows a model of language development to know what she should listen for and model in her conversation with preschoolers (e.g., prepositional phrases, directional words, adverbs).

- The adult education instructor checks to see if adult students need more practice in understanding the meaning of common prefixes before moving on to a new set of skills.

- A home instructor observes whether or not a parent is ready to use dialogic reading techniques and determines how much support the parent needs to take part in a school conference successfully and obtain information to support their children's learning.

These are all examples where understanding progress milestones informs the choice of next instructional tasks.

Research or theory about the trajectory of learning and development specify milestones (as in the early childhood example above). A program may also use benchmarks built into a published curriculum (perhaps true for the adult example above). Whatever the source of milestones, they apply to all or most families even though the pace of expected progress will depend on individual family members' skills and background experiences, and the intensity of the program's interventions:

- Even though the same model of language development informs the staff's interactions with all children, the teacher's conversation with a three-year-old who has just begun to use two-word sentences will sound quite different from her conversation with a voluble three-year-old who has been in the program since infancy and who is expanding his vocabulary with adjectives for size and shape.

- An adult with only four years of formal education who is tentative about her own English speaking may take longer to achieve the milestone of helping her school age children with their homework than the native English-speaking mother who, prior to entering Even Start, simply did not know she had a role to play in helping her children with their work.

In addition to informing staff members' instructional planning, records of participants' attainments serve the important function of motivating staff and students. Acknowledging that students are achieving small steps toward longer-term outcomes helps staff recognize the benefits of their efforts—especially important when working with families who experience a number of "stops and starts."

Monitoring progress includes:

- *reviewing the family's monthly attendance in various activities;*

- *learning whether family goals have been met;*

- *analyzing the changes in goals families set over time;*

- *tracking toddlers' language development milestones;*

- *keeping track of preschoolers' knowledge of letters and sounds;*

- *tracking reading rate/fluency of primary grade students and adults;*

- *recording numbers of books read independently;*

- *recording known English sight words or percent of correct responses to comprehension questions;*

- *keeping portfolios of writing progress;*

- *documenting the development of a family's positive relationship with children's teachers;*

- *and so forth.*

Participants also need to know that their efforts on small steps will add up to important goals. Systematically recording progress helps families see and celebrate the small steps that are associated with longer-term goals. Reading a list of common English sight words might be a small, but meaningful, milestone for the adult who is beginning to speak English. Achieving perfect attendance for the quarter might be a small milestone for the school age children of an Even Start family. When programs celebrate participants' small achievements, they contribute to the long-term retention of families in the program.

The role of the evaluator. A local Even Start evaluator might not have previously been involved in tracking participants' attainment of short-term milestones—achievements that are short of the outcomes expected for statewide program evaluation and reporting. To animate evidence-based program improvement, however, paying attention to how programs set and track progress can have a high payoff value. The evaluator can play any one or all of these six roles in monitoring progress. Each is explored briefly in this chapter.

1. Help project staff identify milestones or benchmarks associated with family goals and program outcomes;

2. Help identify tools or approaches for monitoring progress that are aligned with expected outcomes;

3. Help set up record-keeping systems to track progress efficiently;

4. Summarize and report progress on milestones across participants;

5. "Troubleshoot" failures of subgroups of participants to reach goals; and/or

6. Analyze the relationship between achieving outcomes and attaining progress to understand more about patterns of progress that predict success.

The first three roles provide consultation in assessment to program staff while the last three connect progress monitoring to other aspects of evaluation. Likely benefits of involving the local evaluator are a more systematic and objective approach to monitoring participant progress and more nuanced explanations of the processes associated with achieving (or not achieving) expected participant outcomes.

Identifying Milestones

One of the first questions an evaluator might ask program staff is, which models of skill development or curricular objectives do staff members use to plan instruction? Learning about curricular objectives and the expected sequence of meeting them gives the evaluator a fuller picture of program processes and implementation, and lets instructional staff articulate their understanding of the learning process. (See similar advice about assessing program implementation in Chapter 5.)

If a new project does not have curricular objectives in all domains or does not suggest a sequence of development, the evaluator of a first-year project might suggest locating an appropriate framework to guide instruction, and help select a framework that is in line with expected program outcomes. For example, if the performance measure for preschool

children is a language assessment that stresses vocabulary and comprehension, the program should have some language development milestones for young children that are related to understanding the meaning of high-frequency words in various categories, e.g., words for position, order, scale, senses.

Sources of curriculum milestones include:

- state content and performance standards for PreK-12;
- local district content or curriculum frameworks;
- the theoretical model underlying commercial curricula or assessments; and
- syntheses of research such as *Preventing Reading Difficulties in Young Children* (National Research Council, 1998) and the *Framework for Parenting Education* (U.S. Department of Education, 2000) which summarize information about how children learn to read and parents' roles in supporting children's learning.

Family goals. Many Even Start programs ask families to identify the goals that they expect to achieve through participation in family literacy. Goals are often a mix of learning objectives, e.g., obtain a GED, learn to speak and read English, or earn nurse's aide certificate, etc., and improvements in family functioning, e.g., get a better apartment, obtain a driver's license and car, or become a citizen. Family goals can serve as milestones for tracking a family's sense of efficacy and purpose—critical for retaining families in the program long enough to meet learning goals.

Setting goals is sometimes part of recruitment and orientation activities. Family goals provide insights that staff can use to frame instructional tasks; for example, the driver's preparation manual or church bulletin may become informational text for lessons about word patterns. Some programs use goal-setting to introduce families whose lives may be otherwise disorganized and crisis-oriented to planning for long-term change. Staff can help guide goal-setting by breaking large ambitions into smaller achievable steps and coaching adults to see connections among a series of short-term goals.

Program staff members work with families regularly to revisit their goals, assess progress, and set new goals. An alternate approach asks parents to respond periodically to a series of generic goal statements (e.g., improve housing, speak and write English, manage children's behavior, help children with homework) by noting whether or not the statement represents a current goal, an achievement, or an area that is not of concern.

Adults entering programs commonly set goals that may be unrealistic—the adult with little formal education states he is entering a family literacy program to become a doctor. Six months later, the

Example: Recommending a Framework for Parent Education
Sandi Miles is the evaluator of LEARN MORE, a new Even Start project that collaborates with the local community college and the school system. Miles quickly learns that the adult basic education staff follow a structured curriculum that incorporates word study practice with comprehension strategies. For every eight lessons, the staff administer an assessment of mastery of elements of word structure, fluency, and comprehension. But the program has no similar structure for parent education. Each family educator independently plans home lessons to encourage parents to work with their children on language and literacy activities. In her first-year interim evaluation report, Miles recommends that the project develop a set of research-based goals in parenting education as an umbrella for lesson development and progress monitoring. Miles recommends that staff contact the local university-based parent education institute for guidance. Since one outcome for preschool children is story comprehension, Miles suggests that curriculum objectives for parents at least include mastering the principles of dialogic reading for shared conversations about books with their children.

same student's stated goal is to earn a GED and obtain a driver's license. Simply tracking the progress toward goals may not be illuminating for an evaluator, although following the changes in the nature of family goals over time could provide insight into an adult's ability to set and achieve meaningful and realistic goals. The evaluator can also use family goals as a backdrop against which to assess the appropriateness of a program's instructional activities or to interview parents about their satisfaction with their rate of learning progress.

Identifying Measures to Assess Progress

Program directors are likely to call upon evaluators' expertise to help select, evaluate, or create progress measures. The caution here, of course, is that developing progress measures can quickly grow beyond the scope of a typical evaluation.

The local evaluator brings knowledge of the outcome measures used for performance indicators and the judgment to help project staff assess the alignment among possible measures of milestones, curricular goals, and outcomes. Is the proposed progress measure valid—does it give a "reading" on the most important milestones? For example, does a proposed observation record of child progress provide enough of a "reading" on language development to indicate how well children will do on the program's end-of-year assessment? If the observation record largely focuses on physical and social development, it will provide useful information but not be as salient as a recording form that also prompts staff to observe language use.

Often projects assess learning progress with locally-developed systems. Evaluators can help staff members figure out how to use the information that they routinely collect—in portfolios, for example—to determine whether or not participants' progress is adequate. Evaluators might help staff develop a list of possible portfolio samples and locate scoring rubrics for judging degrees of skill mastery. Portfolio items could include: a journal entry to assess skills in written English, a tape recording of the student reading informational text to judge reading rate and fluency, and examples of student work to assess transfer of job readiness skills.

The local evaluator can also help program staff learn about, gain access to, and use the results of the progress measures primary grade teachers use to track the development of literacy skills. Schools increasingly monitor early reading progress systematically. Familiarity with various assessment tools, e.g., the Dynamic Indicators of Basic Early Literacy (DIBELS) and fluency monitors, can guide the program staff in offering supplementary instruction during home visits and in after-school programs.

Keeping Systematic Records

An ideal evaluation task for a first-year project is ensuring that a project has solid record-keeping systems that all staff use. It can be much more challenging to consult with a mature project where individual instructors have implemented a number of separate systems. In some cases, the evaluator's most helpful role may be leading staff to organize the information they already routinely collect about participant progress.

First, the evaluator might guide the staff in creating an inventory of the milestones and measures that staff members already use and determine which are essential for all families. These might be milestones used by other agencies that provide instruction, such as Head Start and adult education programs, K-3 teachers, and social service support agencies.

Information on milestones that apply to all families forms the basis for a family progress record. The evaluator might facilitate record development and also advise on computerizing and/or linking progress records to existing software systems to record performance indicator information for state-level reporting. A relational database is ideal because progress information for individual family members can be organized by family units and also summarized across groups of individuals. This will aid in reviewing results and planning instruction. The evaluator might consult with project staff as they design such a database or help locate appropriate technical expertise.

With information organized efficiently, the evaluator can help project staff develop and use data summaries to seek patterns that apply to groups of participants. Visual displays of information are especially useful in discerning patterns of progress or gaps in progress.

Example: Looking at Progress Data

Jorge Perez has organized AYUDA's data about adult basic education unit tests in several ways to aid the staff's review of progress. This chart inspired staff to reexamine when they scheduled assessments and what motivational incentives they might offer long-term and lower-functioning students.

Groupings of Students	% correct medians	% correct range	Avg. length of time in program
Students who entered below grade	35%	8%-68%	13 months
Students who entered at grade 8 and above	70%	55-100%	10 months
Students who attend less than 50%	42%	10-75%	16 months
Students who attend between 51-75%	85%	70-95%	14 months
Students who attend more than 75%	86%	68-100%	12 months

Reporting Progress

The benefit of involving the evaluator in designing a program's record-keeping system is the familiarity he or she will develop with data sources, which can inform other aspects of the local evaluation. Not all local evaluations will necessarily use progress monitoring records—that will depend on the evaluation question guiding the local evaluation plan. Below are examples of focused inquiries in which the progress information staff members routinely collect would be an essential data source:

- *Are the preschool children served by the child care center making as much progress in language development as the children in Head Start?*

- *How much progress do adults who drop out before taking the post TABE (the measure used for performance indicators) make?*

- *How much more progress do families who receive two home visits per week make compared to families who receive one visit a month?*

For those inquiries, tracking and summarizing progress is essential in responding to the evaluation question. In other cases, progress monitoring data would be less central to the evaluation but might provide additional explanation of other results. For example, the evaluator might summarize learning progress in more detail to illustrate the meaning of an average one level gain on a pre-post assessment.

Troubleshooting Results

When outcomes are disappointing, the evaluator needs to explore the reasons why in order to make viable suggestions for improving a program. In addition to analyzing items on the outcome measures, checking participation levels, and determining quality of instruction, tracking what is known about patterns of progress should be central. For example,

- *If a preschooler is at the same percentile level on the Preschool Language Scale after a year in Even Start, what does her portfolio show about her progress in using categories of vocabulary words, the complexity of her sentence and grammatical structures, and her ability to respond to questions about stories?*

- *If an adult basic learner did not make a grade level gain on his TABE after a year in the program, what do end-of-unit tests and informal assessments suggest about his reading progress?*

Answers to such questions are important clues to whether or not the results of the outcome measure accurately reflect participants' progress, whether there is cause for concern about the overall pace of progress or the intensity of the intervention, and/or whether the progress milestones that inform instruction are the right guideposts.

Relating Outcomes and Milestones

Given that Even Start programs typically serve fewer than 50 families, it can take a few years to amass enough data about subgroups to see patterns. The evaluator of a mature program may have accumulated enough information to look for patterns in learning progress that predict performance on outcome measures. In the spirit of motivating staff and parents to understand more about how their steps toward progress can add up to important goals, evaluators could analyze the relationship between outcomes achieved on performance indicators and progress made on learning milestones. Examples of evaluation questions that could guide inquiries are:

- *What language skills did the four-year-olds who scored in the highest category of the Get Ready to Read assessment demonstrate during quarterly language reviews?*
- *What is the average score on a practice test that predicts success with the GED?*

Answers to focused inquiries such as these have many benefits. They guide staff in decisions about program design and instruction and give parents realistic guideposts for gauging the time and effort required for results.

Using Milestone Data for Continuous Improvement

Data on milestones that participants have or have not achieved are important for discussions about program improvement. Some ways to use such data for improvement follow.

- **Feedback on instruction.** The evaluator can summarize the types of milestones families achieved or did not achieve and how long it typically takes to achieve key milestones. The resulting information can help show whether program services are intense enough, practice opportunities are adequate, and goals are realistic.
- **Differences by site and instructor.** Depending on how the program is structured, it may be possible to analyze milestone information by instructor or site to learn if some effective learning practices might be replicated in other settings. For example, the students of one adult education instructor may consistently achieve higher results on unit tests. The evaluator might conduct a further inquiry into the practices and strategies that contribute to

Example: Understanding Progress

John Tabor was understandably disappointed with the primary grade results this year from the HILL Central Even Start program. When he checked school records, he found that only one of the ten children from Even Start families was rated as reading at or above grade level for the year even though the program had finally begun after-school supplementary tutoring in reading—a recommendation he had made in last year's evaluation report.

John decided to see what he could learn from the other nine children's teachers about their progress. Checking the quarterly early literacy profiles the school completed, he found that seven of the nine children had made appropriate progress for their grade levels in decoding skills, and that all nine recognized common sight words. Only one of the nine was rated as adequately fluent in oral reading; all nine were struggling with even basic comprehension details such as retelling story events and identifying main characters. As a result, the nine children were two to three levels behind most children in their classrooms.

Instead of simply reporting that only 10% of HILL Central's children were successful in reading at or above grade level (the state's performance indicator), John was able to supplement the information with this progress chart.

Percent Achieving Adequate Progress in:

overall reading level	*10%*
decoding skills	*70%*
sight word recognition	*100%*
fluency	*20%*
literal comprehension	*10%*

Example: Predicting Success

Don James carried out a longitudinal study to track four cohorts of Even Start children who had entered school, about 100 children. From the data on reading progress, he determined that about 65% of the students read on grade level or above and were deemed by their teachers to have solid foundations of reading skills.

For the purpose of developing recommendations, James is curious about those students' profiles when they were in the Even Start pre-K program. Using the project's computerized record system, he will review the results of skill mastery checks that teachers carried out every six weeks. He wants to explore some specific potential predictors:

- *When did the students with reading competence master initial and final letter sounds?*

- *Did they enter kindergarten able to read sight words?*

- *What do we know about their vocabulary development at ages three and four?*

the strong showing, and document them so that program leaders can improve the pedagogy other staff members use.

- **Differences by groups of participants.** Examining patterns of progress may help program staff identify characteristics of participants that point to different instructional needs. For example, some adult participants may have more difficulty writing sentences and paragraphs than others. Further study would look at the path of learning progress in other goal areas: does this group tend to progress slowly with comprehension or vocabulary? Does it participate as actively in the program, etc.? The answers could inform how staff groups learners for instruction.

- **Reflecting on outcomes.** When annual outcome results are disappointing for a whole group, it is worthwhile for the evaluator to analyze the results in light of progress on related milestones. This may suggest areas where materials or pedagogy should be strengthened. For example, if analysis of children's tests shows systematic weaknesses in understanding vocabulary words, a next step would be to learn whether or not vocabulary development is tracked and, if not, to develop a plan to do so. If vocabulary development is tracked, the next step would be to examine the progress monitoring results. They may show that vocabulary development is solid and instruction is adequate, or they might show weak or average development that needs enrichment through more opportunities for conversation and play.

- **Critical points.** Analyzing progress patterns in relationship to program drop-out patterns may illuminate the places where participants "get stuck" or become discouraged about their ability to make progress. With this information, staff can restructure program offerings, provide extra attention to participants at key points, identify incentives for effort and progress, locate additional learning aids, and/or organize peer support.

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Final note to program staff members. This chapter is filled with ideas that may extend well beyond the scope of current local evaluation expectations in some states. In the event that all the roles described in this chapter are new, the options may seem overwhelming. Program staff members should begin by considering which might have the greatest payoff for improving instruction in the local program. If the program expects the evaluator to serve as a consultant and help identify or develop learning progress measures, the time involved could be substantial and would likely require additional compensation for the evaluator.